REMARKS

The Examiner's Office Action mailed November 17, 2003 has been received and carefully reviewed. Claims 18, 32 and 36 have been amended and no claims have been canceled. Therefore, claims 1-36 are pending in this application. For at least the following reasons, it is respectfully submitted that this application is in condition for allowance.

In the Action, the drawing are objected to under 37 CFR 1.83(a) because every feature of the invention specified in the claims (designating claims 3, 4, 17 and 18) are not shown in the drawings. **Applicants disagree.** Every claim element in claim 3 is shown in Fig. 2A. Every claim element in claim 4 is shown in Fig. 3. Every claim element in claim 17 is shown in Fig. 5. Every claim element in claim 18 is shown in Fig. 6. Followings are detail explanation of the relationship between the claim elements and drawing parts.

As to claim 3, a first metal bump is illustrated as the reference number 15 in Fig. 2A, and a second metal bump is illustrated as the reference number 16. A first bond of the first bonding wire 17 is illustrated as one-end of the first wire 17 located on the first terminal pad 11a, and the second bond of the first wire 17 is illustrated as the other-end of the first wire 17 located on the first conductive pattern 6a.

A first bond of the second bonding wire 18a is illustrated as one-end of the second wire 18a located on the second conductive pattern 6b, and the second bond of the second wire 18a is illustrated as the other-end of the second wire 18a located on the first metal bump 15.

A first bond of the third bonding wire 18b is illustrated as one-end of the third wire 18b located in the Y area of the conductive relay pad 11b, and the second bond of the third wire 18b is illustrated as the other-end of the third wire 18b located on the second metal bump 16.

As to claim 4, a metal bump is illustrated as the reference number 21 in Fig. 3. A first bond of the first bonding wire 22 is illustrated as one-end of the first wire 22 located on the first terminal pad 11a, and the second bond of the first wire 22 is illustrated as the other-end of the first wire 22 located on the first conductive pattern 6a.

A first bond of the second bonding wire 23a is illustrated as one-end of the second wire 23a located in the X area of the conductive relay pad 11b, and the second bond of the second wire 23a is illustrated as the other-end of the second wire 23a located on the second conductive pattern 6b.

A first bond of the third bonding wire 23b is illustrated as one-end of the third wire 23b located on the second terminal pad 13, and the second bond of the third wire 23b is illustrated as the other-end of the third wire 23b located on the metal bump 21.

As to claim 17, a first metal bump is illustrated as the reference number 32 in Fig. 5, and a second metal bump is illustrated as the reference number 35. A first bond of the first bonding wire 33 is illustrated as one-end of the first wire 33 located on the first terminal pad 31a, and the second bond of the first wire 33 is illustrated as the other-end of the first wire 33 located on the first conductive pattern 6a.

A first bond of the second bonding wire 36a is illustrated as one-end of the second wire 36a located on the second conductive pattern 6b, and the second bond of the second wire 36a is illustrated as the other-end of the second wire 36a located on the first metal bump 32.

A first bond of the third bonding wire 36b is illustrated as one-end of the third wire 36b located on the first metal bump 32, and the second bond of the third wire 36b is illustrated as the other-end of the third wire 36b located on the second metal bump 35.

As to claim 18, a metal bump is illustrated as the reference number 42 in Fig. 6. A first bond of the first bonding wire 43 is illustrated as one-end of the first wire 43 located on the first terminal pad 41a, and the second bond of the first wire 43 is illustrated as the other-end of the first wire 43 located on the first conductive pattern 6a.

A first bond of the second bonding wire 46a is illustrated as one-end of the second wire 46a located on the second conductive pattern 6b, and the second bond of the second wire 46a is illustrated as the other-end of the second wire 46a located on the metal bump 42.

A first bond of the third bonding wire 46b is illustrated as one-end of the third wire 46b located on the second terminal pad 44, and the second bond of the third wire 46b is illustrated as the other-end of the third wire 46b located on the metal bump 42.

As explained above, since all claim elements are shown in the drawings, Applicants respectfully request the examiner to withdraw the objection on this matter.

Claims 32 and 36 are rejected under 35 U.S.C.112 because these claims include insufficient antecedent basis elements. Applicant amended claims by changing the language to "a side of the first semiconductor" from "the side of the first semiconductor" in both claims. Thus, since Applicant believes that the rejection under 35 U.S.C.112 is now overcome by this amendment, the rejection under 35 U.S.C.112 is no longer applicable.

In the Action, claims 13, 14, 19-23, 25, 26, 28, 31, 32, 35 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Takiar, or in the alternative, under 35 U.S.C. 103(a) as being obvious over Takiar in combination with Fujiyama. **Applicant disagrees because of the following reasons.**

As to independent claim 13, the examiner asserts that Takiar discloses a first terminal pad, which corresponds to an electrical contact 32, and first internal terminal, which corresponds to an electrical lead 46. However, according to Fig. 2 of Takiar, the electrical contact 32 does not connect the electrical lead 46. Further, the examiner asserts that a carrier member 42 corresponds to an insulating substrate of the invention. However, according to the disclosure of Takiar, in column 5, lines 26-28, it is clearly mentioned that the carrier member 42 is a lead frame. Thus, the carrier member 42 is not formed of insulating material.

As to independent claim 20, the examiner asserts that Takiar discloses a first conductive portion, which corresponds to an electrical contact 32 because of the disclosure of Takiar, in column 6, lines 15-18. However, the description of Takiar is abstractive and ambiguous. According to Fig. 2 of Takiar, the electrical contact 32 does not connect the electrical lead 46. Further, the examiner asserts that a carrier member 42 corresponds to an insulating substrate of the invention. However, according to the disclosure of Takiar, in column 5, lines 26-28, it is clearly mentioned that the carrier member 42 is a lead frame. Thus, the carrier member 42 is not formed of insulating material.

As to independent claim 25, the examiner asserts that a carrier member 42 corresponds to an insulating substrate of the invention. However, according to the

disclosure of Takiar, in column 5, lines 26-28, it is clearly mentioned that the carrier member 42 is a lead frame. Thus, the carrier member 42 is not formed of insulating material. Further, since Takiar fail to disclose a use of the insulating substrate, the Takiar does not disclose a first conductive pattern formed on the insulating substrate, and a first semiconductor chip mounted on the insulating substrate.

Fujishima also does not disclose the above-described feature of the invention.

Further, as the examiner admitted, the Takiar does not disclose the electrical contact having a first area and second area, which is different form the first area. However, the examiner asserts Fujishima discloses a conductive relay pad (p or 40) having a first area 41 and a second area (41 or Pa). **Applicants disagree.** Fujishima simply discloses a pad on which two wires are connected. Thus, Fujishima does not disclose a conductive **relay** pad and a first terminal, each of which are formed on the first semiconductor chip. Further, According to *In re Rouffet*, 149 F.3d 1350, 1357 (Fed.Cir. 1998), [t]his court has identified three possible sources for a motivation to combine references: **the nature of the problem to be solved**, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. A technology disclosed in Fujishima relates to the connection for semiconductor devices. On the other hand, a technology of the invention or Takiar relates to the connection for semiconductor chips, which is sealed by resin. Since Fujishima and Takiar does not have the same technical problems, such as an unexpected wire connection by resin, which is to be resolved by the invention, there is no motivation to be combined. Applicants respectfully request to show the motivation to combine the references, Fujishima and Takiar.

Therefore, since neither Takiar nor Fujishima alone or in combination does not disclose or suggest the claimed multi-chip package type semiconductor device, and since the examiner failed to show the motivation to combine Takiar with Fujishima, independent claims 13, 20 and 25 clearly are not anticipated or obvious by, and is deemed to be clearly patentable over Takiar or Takiar and Fujishima, and the rejection of claims 13, 20 and 25 accordingly should be withdrawn.

Claims 14, 19, 21-23, 26, 28, 31, 32, 35 and 36 depends from one of independent claims 13, 20 and 25 directly and indirectly. Therefore, these claims also are not anticipated or obvious by, and is deemed to be clearly patentable over Takiar or Takiar and Fujishima, and the rejection of these claims accordingly should be withdrawn.

In the Action, claims 24 and 27 are rejected under 35 U.S.C. 103(a) as being obvious over Takiar in combination with Fujiyama. **Applicants disagree.** As described above, since Applicants believe claims 20 and 25 from which claims 24 and 27 depend, respectively, include patentable subject matter, the claims 24 and 27 should be patentable, and the rejection of claims 24, 27 accordingly should be withdrawn.

In the Action, claims 1, 2, 15, 16, 29, 30, 33 and 34 are rejected under 35 U.S.C. 103(a) as being obvious over Takiar or Takiar in combination with any of Hiba and Fujiyama. **Applicant disagrees because of the following reasons.**

As to independent claims 1, and 15, the examiner asserts that a carrier member 42 corresponds to an insulating substrate of the invention. However, according to the disclosure of Takiar, in column 5, lines 26-28, it is clearly mentioned that the carrier

member 42 is a lead frame. Thus, the carrier member 42 is not formed of insulating material. Further, since Takiar fail to disclose a use of the insulating substrate, the Takiar does not disclose a first and second conductive patterns formed on the insulating substrate. Further, as shown in Fig. 2 of Takiar, Takiar does not disclose the electrical contact 32 being connected to the electrical lead 46 by any bonding wire.

Fujishima also does not disclose the above-described feature of the invention.

Further, as the examiner admitted, the Takiar does not disclose the electrical contact having a first area and second area, which is different form the first area. However, the examiner asserts Fujishima discloses a conductive relay pad (p or 40) having a first area 41 and a second area (41 or Pa). **Applicants disagree.** Fujishima simply discloses a pad on which two wires are connected. Thus, Fujishima does not disclose a conductive **relay** pad and a first terminal, each of which are formed on the first semiconductor chip. Further, According to *In re Rouffet*, 149 F.3d 1350, 1357 (Fed.Cir. 1998), [t]his court has identified three possible sources for a motivation to combine references: **the nature of the problem to be solved**, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. A technology disclosed in Fujishima relates to the connection for semiconductor devices. On the other hand, a technology of the invention or Takiar relates to the connection for semiconductor chips, which is sealed by resin. Since Fujishima and Takiar does not have the same technical problems such as an unexpected wire connection by resin, which is to be resolved by the invention, there is no motivation to be combined. Applicants respectfully request to show the motivation to combine the references, Fujishima and Takiar.

Therefore, since neither Takiar, Hiba nor Fujishima alone or in combination does not disclose or suggest the claimed multi-chip package type semiconductor device, and since the examiner failed to show the motivation to combine Takiar with Fujishima, independent claims 1 and 16 clearly are not obvious by, and is deemed to be clearly patentable over Takiar or Takiar, Hiba and Fujishima, and the rejection of claims 1 and 15 accordingly should be withdrawn.

Claims 2, 16, 29, 30, 33 and 34 depends from one of independent claims 1 and 15 directly or indirectly. Therefore, these claims also are not obvious by, and is deemed to be clearly patentable over Takiar or Takiar, Hiba and Fujishima, and the rejection of these claims accordingly should be withdrawn.

In the Action, claims 3-12, 17 and 18 are rejected under 35 U.S.C. 103(a) as being obvious over Takiar and Fujishima or in combination with Takiar, Hiba and Fujiyama. **Applicants disagree.** As described above, since Applicants believe claims 1 and 13 from which claims 3-12, 17 and 18 depend, respectively, include patentable subject matter, the claims 3-12, 17 and 18 should be patentable, and the rejection of claims 3-12, 17 and 18 accordingly should be withdrawn.

It is noted that this Amendment has been prepared using the requested new format. If there are any irregularities in this format, it would be greatly appreciated if Applicant's Counsel would be so advised

In view of the foregoing, the application is deemed to be in condition for allowance and such is earnestly solicited. Should any fee be further needed, please

charge it to our Account No. 50-0945 and notify us accordingly.

Respectfully submitted

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